

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

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in its capacity as elected Office

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| Date of mailing (day/month/year) 20 April 2000 (20.04.00) | |
| International application No. PCT/US99/15121 | Applicant's or agent's file reference PF-0551 PCT |
| International filing date (day/month/year) 02 July 1999 (02.07.99) | Priority date (day/month/year) 02 July 1998 (02.07.98) |
| Applicant LAL, Preeti et al | |

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:27 January 2000 (27.01.00)☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

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| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland | Authorized officer C. Villet |
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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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| (51) International Patent Classification ⁷ : C12N 15/12, 5/10, C07K 14/47, 14/705, 16/18, 16/28, C12Q 1/68 | | A3 | (11) International Publication Number: WO 00/01821 |
| | | | (43) International Publication Date: 13 January 2000 (13.01.00) |
| (21) International Application Number: PCT/US99/15121 | | (74) Agents: BILLINGS, Lucy, J. et al.; Incyte Pharmaceuticals, Inc., 3174 Porter Drive, Palo Alto, CA 94304 (US). | |
| (22) International Filing Date: 2 July 1999 (02.07.99) | | | |
| (30) Priority Data: 60/091,677 2 July 1998 (02.07.98) US | | | |
| (63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 60/091,677 (CIP) Filed on 2 July 1998 (02.07.98) | | | |
| (71) Applicant (for all designated States except US): INCYTE PHARMACEUTICALS, INC. [US/US]; 3174 Porter Drive, Palo Alto, CA 94304 (US). | | | |
| (72) Inventors; and | | (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). | |
| (75) Inventors/Applicants (for US only): LAL, Preeti [IN/US]; 2382 Lass Drive, Santa Clara, CA 95054 (US). TANG, Y., Tom [CN/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). YUE, Henry [US/US]; 826 Lois Avenue, Sunnyvale, CA 94087 (US). CORLEY, Neil, C. [US/US]; 1240 Dale Avenue #30, Mountain View, CA 94040 (US). GUEGLER, Karl, J. [CH/US]; 1048 Oakland Avenue, Menlo Park, CA 94025 (US). GORGONE, Gina, A. [US/US]; 1253 Pinecrest | | | |
| Published <i>With international search report.</i> | | | |
| (88) Date of publication of the international search report: 15 June 2000 (15.06.00) | | | |
| (54) Title: NEUROTRANSMISSION ASSOCIATED PROTEINS | | | |
| (57) Abstract - The invention provides human neurotransmission associated proteins (NTAP) and polynucleotides which identify and encode NTAP. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating or preventing disorders associated with expression of NTAP. | | | |

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/15121

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C12N5/10 C07K14/47 C07K14/705 C07K16/18
C07K16/28 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| P,X | WO 98 46753 A (INCYTE PHARMA INC ;STREETER DAVID GRAY (US); GOLI SURYA K (US); HI) 22 October 1998 (1998-10-22) . compare nt 8-450 of seq. ID 2 with nt 568-1010 of seq. ID 7 of present application --- | 1-21 |
| X | DATABASE GENBANK [Online] Accession No. W07754, 25 April 1996 (1996-04-25) HILLIER L.: "EST; H. sapiens cDNA clone IMAGE:300975 similar to neuronal protein" XP002126191 compare with nt 739-1250 of seq. ID 7 --- -/- | 1-21 |



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

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E earlier document but published on or after the international filing date
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
O document referring to an oral disclosure, use, exhibition or other means
P document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
& document member of the same patent family

Date of the actual completion of the international search

20 December 1999

Date of mailing of the international search report

31.03.00

Name and mailing address of the ISA

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Authorized officer

Galli, I

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/15121

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | <p>DATABASE GENBANK [Online] Accession No. AA155442, 11 December 1996 (1996-12-11) MARRA M.: "EST; M. musculus cDNA clone IMAGE:634943 similar to neuronal protein" XP002126192 compare the ORF with aa 35-200 of seq. ID 1</p> <p style="text-align: center;">---</p> | 1-21 |
| A | <p>WO 90 06047 A (BAYLOR COLLEGE MEDICINE) 14 June 1990 (1990-06-14) abstract</p> <p style="text-align: center;">---</p> | 1-21 |
| A | <p>WO 96 15149 A (UNIV WASHINGTON) 23 May 1996 (1996-05-23) abstract</p> <p style="text-align: center;">---</p> | 1-21 |
| A | <p>US 5 580 775 A (FREMEAU JR ROBERT T ET AL) 3 December 1996 (1996-12-03) abstract</p> <p style="text-align: center;">---</p> | 1-21 |
| A | <p>EP 0 674 003 A (ALLELIX BIOPHARMA) 27 September 1995 (1995-09-27) abstract</p> <p style="text-align: center;">---</p> | 1-21 |
| A | <p>SMITH ET AL: "The Brn-3a transcription factor induces neuronal processes outgrowth and the coordinate expression of genes encoding synaptic proteins" MOLECULAR AND CELLULAR BIOLOGY,US,WASHINGTON, DC, vol. 17, no. 1, page 345-354 XP002087059 ISSN: 0270-7306 abstract</p> <p style="text-align: center;">-----</p> | 1-21 |

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 99/ 15121

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claims 18, 19
are directed to a method of treatment of the human/animal
body, the search has been carried out and based on the alleged
effects of the compound/composition.
2. ☒ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such
an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all
searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment
of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report
covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is
restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-21 (partly)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims 15,16,18,19 refer to antagonists and agonists of the polypeptides without giving a true technical characterization. Moreover, no such compounds are defined in the application. In consequence, the scope of said claims is ambiguous and vague, and their subject-matter is not sufficiently disclosed and supported (Art. 5 and 6 PCT). No search can be carried out for such speculative claims whose wording is, in fact, a mere recitation of the results to be achieved.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: (1-21) - partially

A substantially purified polypeptide comprising the amino acid sequence of Seq. ID 1 or fragments thereof.

Corresponding homologs, nucleic acids (seq. ID 7), vectors, recombinant host cells, antibodies, agonists, antagonists, diagnostic and therapeutic applications.

2. Claims: (1-21) - partially

Idem as subject matter 1, but limited to seq. IDs 2,8

3. Claims: (1-21) - partially

Idem as subject matter 1, but limited to seq. IDs 3,9

4. Claims: (1-21) - partially

Idem as subject matter 1, but limited to seq. IDs 4,10

5. Claims: (1-21) - partially

Idem as subject matter 1, but limited to seq. IDs 5,11

6. Claims: (1-21) - partially

Idem as subject matter 1, but limited to seq. IDs 6,12

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/15121

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
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